

PROCEEDINGS

OF THE

# Hawaiian Entomological Society

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VOL. IX, No. 3

FOR THE YEAR 1936

SEPTEMBER, 1937

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JANUARY 2, 1936

The 361st regular meeting of the Hawaiian Entomological Society was held at the Experiment Station, H.S.P.A., January 2, 1936, at 2:30 p. m.

Members present: Miss Amy Suehiro, Messrs. Bryan, Ehrhorn, Illingworth, Keck, Rosa, Schmidt, Swezey and Williams.

Visitors: Jas. K. Holloway and Robert H. Lawder.

President Keck called the meeting to order.

The minutes of the preceding meeting were approved as read.

REPORTS OF OFFICERS AND COMMITTEES

Mr. O. H. Swezey reported that as authorized, he had written the article on the Entomology of Hawaii for transmission to the Pacific Coast branch of the American Association for the Advancement of Science, this being part of an invitation program to said Association to hold a meeting in Honolulu.

Mr. J. S. Rosa reported that he had audited the financial accounts of the Society for the year 1935 and found them to be correct. Mr. Swezey then moved that the auditor's report of the Society's treasurer, and the treasurer's report as well, be accepted and placed on file; seconded by Mr. E. M. Ehrhorn, and passed.

PAPERS ON LOCAL SUBJECTS

Mr. O. H. Swezey presented a paper entitled "A New Species of Dictyophorodelphax from the Island of Lanai".

EXHIBITION AND DISCUSSION OF LOCAL MATERIAL

*Trichogramma minutum* Riley.—Mr. Swezey exhibited four specimens of this tiny chalcid which had issued from an egg of

*Danaus archippus* (Fab.) found on a leaf of *Gomphocarpus physocarpus* in his garden in Manoa Valley, Dec. 28, 1935. It is the first record in Hawaii of this parasite from the egg of this butterfly.

*Plusia chalcites* Esp.—Dr. Illingworth reported that moths were again observed in flight about plants in Kaimuki during November. This pest was held so well in check by natural enemies that only slight injury to foliage was noticeable, even on such favorite plants as Geraniums, Coleus, etc. Several very young caterpillars were found, but these disappeared before coming to maturity—evidently by predators. A single fully-fed caterpillar taken was put in a tube, where it spun up and pupated. A Tachinid fly, *Chaetogaedia monticola* Bigot, emerged.

*Mesovelia mulsanti* White.—Dr. Williams reported that this water-striding bug, first recorded here in 1933, is now widespread in the lowlands of Oahu. It occurs in ornamental ponds, lowland reservoirs, taro patches, etc., and being a fierce predator must considerably affect the insect fauna of its environment.

*Celerio*, probably *calida* (Butler).—Dr. Williams reported having seen a specimen of this Sphinx moth feeding at the flowers of *Plumbago* alongside of the social hall at Ewa Plantation, in the noon sunshine of December 18, 1935.

*Culex quinquefasciatus* Say.—Dr. Williams reported that on December 1, 1935, this mosquito was very abundant in the low growth on the Manoa-Palolo ridge. These insects had evidently been carried by the strong N. E. trades, then blowing, from the windward or N. E. side where Mr. J. S. Rosa reported *Culex* very plentiful. They occurred in numbers even on the summit of Olympus, 2,400 feet above sea level.

*Charadromyia torrenticola* Terry.—Dr. Williams called to attention that Edwards in the publication Konowia, 7, 1928, p. 236, states that Terry's genus *Charadromyia*, for curious aquatic Hawaiian chironomid flies, has been synonymized with *Telmatogeton*.

*Clunio pacificus* Edwards.—Dr. Williams reported a second marine chironomid fly from the Waianae coast. It appears to belong to the genus *Clunio* and much resembles the illustration of

*Clunio pacificus* described by Edwards from Samoa. The flies have been sent to the British Museum for determination.

Mr. R. H. Lawder spoke on treating lumber against ravages by termites and dry rot fungus, with Wolman's salt solution, the solution becoming fixed in the wood so that there is no leaching out to any degree. Treated and untreated wood was exhibited. A few futile attempts had been made by termites to enter the Wolmanized wood, while the check lumber untreated was very severely damaged by the termites. Both pieces of wood had been placed side by side in the soil.

*Tenodera angustipennis* Sauss.—Mr. E. H. Bryan, Jr., mentioned having seen the large mantis *Tenodera angustipennis* at Wawamalu Beach towards Makapuu, Oahu. Mr. C. B. Keck had seen it at Lanikai and Mr. J. S. Rosa at Waimanalo. The mantis was then held under discussion for a few minutes.

#### EXHIBITION AND DISCUSSION OF FOREIGN MATERIAL

Mr. O. H. Swezey showed photographs of two types of Australian termite mounds and specimens of one of the termites.

Miss Amy Suehiro gave an interesting account of her trip to Madrid, Spain, where the International Entomological Congress was held in 1935 and which she attended as representative of the Hawaiian Entomological Society. En route an entomological meeting at Los Angeles, Cal., was attended. The entomologists were made very welcome in Madrid, were spared many expenses, tendered receptions, and other forms of entertainment. In England, Miss Suehiro attended a meeting of the London Entomological Society. Particularly worthy of note were the fine exhibits of plant and insect hosts for students of natural history in the British Museum.

Mr. Holloway of the Bureau of Entomology, U.S.D.A., spoke of some of his work on the *Popillia* beetle at Moorestown, N. J., and of the efficient control of the oriental fruit moth by a *Macrocentrus* wasp parasite.

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#### FEBRUARY 6, 1936

The 362nd regular meeting of the Hawaiian Entomological Society was held at the Experiment Station, H.S.P.A., February 6, 1936, at 2:30 p.m.

Members present: Miss Amy Suehiro, Messrs. Bryan, Ehrhorn, Illingworth, Keck, Mason, McBryde, Pemberton, Rosa, Schmidt, Swezey, and Williams.

Visitors: Walter Donaghho and Robert Cushnie.

President Keck called the meeting to order.

The minutes of the preceding meeting were approved as read.

#### EXHIBITION AND DISCUSSION OF LOCAL MATERIAL

*Hercothrips femoralis* (Reut.)—Mr. Swezey exhibited a slide mount of this thrips taken from leaves of sugar cane in greenhouse at the Alexander Street plot of the Experiment Station, H.S.P.A., Jan. 16, 1936. Mr. Carpenter, who is conducting experiments on insect transmission of cane diseases, discovered the thrips a few days previously and called Dr. Williams' attention to them on Jan. 15. It is the first record of this thrips on sugar cane in Hawaii, and we have not yet found it on cane in the open. It has been found on orchids in greenhouses, and on pineapple, tomato and several weeds in greenhouses at the Experiment Station of the Pineapple Producers' Cooperative Association.

*Selenothrips rubricinctus* (Giard)—Specimens of this thrips, which had done considerable damage to the foliage of Christmas berry (*Schinus terebinthifolius* Raddi.) were exhibited by Dr. Illingworth. The terminal leaves, for a space of 6 or 8 inches, were so badly damaged that they dropped off. The adult thrips do most of their feeding on the upper surface of the leaves along the veins. The nymphs are found only below. These congregate in clusters and are partially protected by a slight webbing and bits of rubbish clinging to it. The young larvae have a cluster of six very conspicuous, long, caudal bristles. These are moulted with the last larval coat and are not present in the pupae. This species was first found in the islands by Fullaway in 1909. He collected it on mango. Swezey took it on *Croton* in 1927. During the present investigation, Dr. Illingworth also found it on the leaves of mango and *Croton*, and on strawberry guava. On none of these plants were the thrips sufficiently numerous to do noticeable damage. This thrips was described in 1901 from Guadalupe, where it is a pest of cocoa. It was also recorded from guava, roses, almonds, and mangoes in Trinidad. Russell calls it the Red-

Banded Thrips in describing its work on mangoes and avocados in Florida. (Russell, H. M.—U. S. Dept. Agr., Bur. Ent., Bul. 99, Pt. II, 1912.)

Mr. R. L. Usinger submitted the following notes: Eight days were spent on Kauai from December 28, 1935, on. Although there was a great deal of rain the collecting was rather good. Moths were very abundant, coming to lights at night at Kokee and flying about during light showers in Alakai Swamp. Among the Heteroptera, three undescribed species of *Nysius* were taken on Kumuwela Ridge in great numbers and several endemic Nabids were collected. *Mesovelius mulsanti* White was seen skating on the water in taro patches near Haena, this being the first record of this bug from Kauai.

On Jan. 18, 1936, a visit was made to Rabbit Island. *Geocoris punctipes* Say, *Oligotoma insularis* McLach., *Triphleps persequens* White, *Reduviolus capsiformis* (Germar), and *Nesiomiris hawaiiensis* Kirk. were all very common and should be added to Bryan's list. This difference in the fauna is very likely seasonal and correlated with plant abundance as the vegetation was much thicker than during Bryan's visit.

Dr. C. Schmidt exhibited some of the work of his students in Entomology at the University of Hawaii. Excellent insect collections—extensive and well labeled—were shown as well as good drawings of dissections of the large cockroach.

Dr. Schmidt also submitted the following notes: On January 28, 1936, the director of the playground near the University called attention to the fact that children would not use the grounds because they were being repeatedly stung by honey-bees crawling in the grass. When this was investigated, it was found that the bees were being attracted to the grass by the presence of large numbers of the scale, *Antonina indica* Green. The bees were licking the stems of the grass for the sweet secretions of the scales. It has been observed that the scale generally is found on the roots of grasses, but in this case the soil was very hard so that the scales were above the ground level and located in the region of the grass joints. The nuisance was temporarily abated by the heavy rains which washed the secretions from the grass stems.

One hundred and forty specimens of *Tetrastichus hagenowii* (Ratz.) were recovered from a single egg capsule of *Periplaneta*

*americana* (L.) on January 27, 1936. The contents of the capsule were so badly mutilated that it was not possible to determine whether they were primary or secondary parasites. Since these capsules were recovered from caged roaches it is extremely likely that they are primaries since the screen on the cages would not permit the entrance of a larger parasite. The parasites were determined by Dr. Williams.

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### MARCH 5, 1936

The 363rd regular meeting of the Hawaiian Entomological Society was held at the Experiment Station, H.S.P.A., March 5, 1936.

Members present: Miss Amy Suehiro, Messrs. Bryan, Chock, Ehrhorn, Illingworth, Keck, Mason, Rosa, Swezey, Usinger, Weinrich, and Williams.

Visitors: Emil A. Freedman, Jr., and Jas. K. Holloway.

President Keck called the meeting to order.

The minutes of the preceding meeting were approved as read.

#### PAPERS OF LOCAL SUBJECTS

Mr. R. L. Usinger presented a paper entitled "A New Species of *Koanoa* from the Hawaiian Islands".

#### EXHIBITIONS AND DISCUSSIONS OF LOCAL MATERIAL

Mr. E. M. Ehrhorn spoke of a heavy infestation of coconuts by *Pinnaspis minor* (Mask.) scale.

Miss Amy Suehiro presented the following note on *Isodontia harrisi* Fernald.—The cocoons of this immigrant wasp were found in the midribs of dead *Pandanus* leaves in the Bishop Museum courtyard. They were found in September, 1934, and emerged on February 28, 1936, a pupation period of over a year and a half.

*Agrotis ypsilon* Rott.—Mr. Swezey exhibited potatoes eaten by the greasy cutworm. They were taken from a large field of potatoes being harvested by Oahu Sugar Co., grown on some of their fallow cane land. An occasional potato has been found with the cutworm in the cavity which it had eaten while the potato was *in situ* before the harvesting commenced. This seems to be an hitherto unrecorded habit for this cutworm. One worm can do

considerable injury, for when placed with an uninjured potato, a full-grown worm over night ate a cavity equal to its own bulk.

*Chloridea obsoleta* (Fab.).—Mr. Swezey reported having collected two caterpillars of the corn earworm from *Ageratum* and *Gossypium tomentosum* flowers on the flats near Makapuu Head, Jan. 19, 1936. From the caterpillar on *Ageratum* a larva of *Hypo-soter exiguae* (Vier.) issued Jan. 24; and from the caterpillar on *Gossypium* 2 maggots of *Frontina archippivora* Will. issued January 29.

*Pseudococcus pseudonipae* (Ckll.).—Mr. Swezey exhibited a plant of *Cocos romanzoffiana* which had an infestation of mealybugs resembling *Pseudococcus nipae*. When examined by Mr. Ehrhorn it was pronounced *P. pseudonipae*. The plant was growing amongst others similarly infested at the Vineyard St. Nursery.

Mr. E. H. Bryan, Jr., exhibited a very creditable collection made by Yoshio Oshiro, of Honolulu, as follows: 75 species—30% Coleoptera, 25% Hymenoptera, 16% Diptera, 10% Lepidoptera, 10% Heteroptera, 3% Homoptera, 3% Neuroptera, 1½% Orthoptera, 1½% Dermaptera.

Mr. R. L. Usinger exhibited photographs of *Salda* bug eggs.

Dr. F. X. Williams spoke of having found on February 9, a dipterous leaf-miner, allied to *Lemnaphila*\*, in Lemna plants that covered the water surface of a cement trough in Kukuiala Valley, Waianae Mts. He had taken it previously on Molokai.

#### EXHIBITION AND DISCUSSION OF FOREIGN MATERIAL

Mr. Mason reported on the introduction into Hawaii on February 20, 1936, of four species of fruit-fly parasites. Three of these, *Opius* sp., a red parasite closely resembling *O. fletcheri* in appearance, *Opius* sp., a smaller black insect, and *Hedylus* sp., a large braconid with a long ovipositor, were prepared and shipped by R. H. Van Zwaluwenburg, in Sierra Leone, West Africa. The fourth species is *Opius crawfordi*, a parasite on *Anastrepha fraterculus* in Mexico, and was shipped by W. E. Stone from Mexico City. The African parasites were reared from *Ceratitis punctata* and *C. giffardi*.

Liberations were made on February 20 of parts of the ship-

\* Later described as *Hydrellia williamsi* by E. T. Cresson, Jr., Trans. Am. Ent. Soc. 62, p. 259, 1936. [Ed.]

ments of the three species of *Opius* in favorable localities on Oahu. The remainder of these shipments and all of the *Hedylus* sp. were held for cage rearing in the laboratory.

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#### APRIL 2, 1936

The 364th regular meeting of the Hawaiian Entomological Society was held at the Experiment Station, H.S.P.A., Honolulu, April 2, 1936, at 2:30 p. m.

Members present: Miss Amy Suehiro, Messrs. Ehrhorn, Illingworth, Ito, Keck, Mason, Pemberton, Rosa, Schmidt, Swezey, Usinger, and Williams.

Visitors: Miss Bertha Hanaoka, Messrs. Walter Donaghho, Richard T. Fujio, Jas. K. Holloway, Sabuco Maehara, Takeschi Nishijima, and Richard S. Suzui.

President Keck called the meeting to order.

The minutes of the preceding meeting were approved as read.

#### PAPERS ON LOCAL SUBJECTS

Mr. O. H. Swezey presented 2 papers entitled: "Notes on the Food of the California Quail in Hawaii", and "Notes on Potato Insects in Hawaii".

#### PAPERS ON FOREIGN SUBJECTS

Dr. Walter Carter presented a paper by Mr. Harold Compere entitled "The Species of *Aenasius*, Encyrtid Parasites of Mealybugs".

#### EXHIBITION AND DISCUSSION OF LOCAL MATERIAL

*Crocidosema lantana* Busck.—Mr. Swezey reported that Mr. L. W. Bryan had sent from Hilo a twig of Litchi having a larva boring in the stem which was identified as the larva of this moth. It turned out to be parasitized by what is apparently *Pristomerus hawaiiensis* Perk.

*Simplicia lautokiensis* Prout.—Mr. Swezey called attention to this species of moth as figured in Insects of Samoa, Pt. III, Fasc. 4, Pl. XII, Fig. 13, 1935, and that the species in Hawaii and recorded as *robustalis* Guen. is this species (*lautokiensis*) if the two are distinct species. *Simplicia robustalis* is figured in Moths



of India, Vol. III, p. 36, 1895. Comparing the figures it is noticeable that there are differences in wing markings which are not brought out in descriptions.

*Heteramphus hirtellus* Sharp\*, or n. sp.—Mr. Swezey exhibited a pair of weevils which may be *hirtellus*, a species collected just once by Mr. Blackburn and never since his time. The description in Fauna Hawaiiensis is too meager for positive determination. The present specimens are different from all other species of the genus which have been described. They were found under loose bark of a dead *Straussia mariniana* tree on the trail to Mt. Olympus, March 29, 1936. A dead specimen was also found. All were near the base of the tree, and seem to indicate its habitat, tho no larvae were found.

*Dromaeolus pachyderes* Sharp.—An adult of this melasid beetle was found in the same situation as the above. There were also numerous adults of *Proterhinus subplanatus* Perkins which is often found abundantly under *Straussia* bark.

*Eumerus* sp.—Mr. Swezey exhibited a specimen of this undetermined recent immigrant which had bred in a rotten sweet potato at the Experiment Station, H.S.P.A. grounds. Several maggots were feeding in the potato, but only one fly had matured so far. It seems to be the first record of the rearing of this immigrant fly in Hawaii.

*Thripoctenus* sp.—Mr. Swezey exhibited a slide mount of a *Thripoctenus* collected from Nasturtium leaf where there was quite an infestation by *Thrips tabaci* Lind. This was at Dr. Shepard's residence in the Punahou School grounds, March 7, 1936. From a hand full of infested leaves brought in, four more specimens of *Thripoctenus* were obtained. If this is the species introduced from Formosa in 1934, this is the first record of its recovery. This also appears to be the first record of Nasturtium being infested by onion thrips in Hawaii.

*Mitrastethus bituberculatus* (Fab.)—A specimen of this curculionid was exhibited by Mr. Ehrhorn, found by him on a plant box at his home in Manoa Valley, March 20, 1936. He has pre-

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\* Later, Mr. Zimmerman studied these specimens and pronounced them a variety of *Heteramphus swezeyi* Perkins. [Ed.]

viously collected the species there in 1917 and 1921, as recorded in the Proceedings of the Society. He found the larvae and pupae on April 1st in wood of nursery boxes—these are butter boxes imported from New Zealand. Mr. Rosa found one specimen in Nuuanu on the screen window.

Dr. Williams reported finding by Mr. Groves, of Aiea, Oahu, and himself of a small unrecorded species of sarcophagid fly—present on *Portulaca* and *Euphorbia* on the H.S.P.A. Experiment Station grounds, Honolulu. He placed it tentatively in the genus *Helicobia*, which means living in snails. This genus often merged in *Sarcophaga* has a number of hosts including snails, various caterpillars, Orthoptera, and Scarabeid beetles. It is not yet known what the host or hosts of this fly are in Hawaii.

Mr. R. L. Usinger exhibited a little bug of the family Enicocephalidae, a family related to the Reduviidae and hitherto unrecorded in the Archipelago. The Enicocephalidae are predacious, possess a bilobed head and totally membranous wings. The specimen was taken on West Maui by E. H. Bryan, Jr. Mr. Usinger also exhibited bugs of the genus *Sulamita*.

There followed a discussion of termite control. Diesel oil was regarded as a good improvement here—penetrates well and checks dry rot also.

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#### MAY 7, 1936

The 365th regular meeting of the Hawaiian Entomological Society was held at the Experiment Station, H.S.P.A., Honolulu, on May 7, 1936, at 2:30 p.m.

Members present: Miss Amy Suehiro, Messrs. J. H. Au, Walter Carter, Q. C. Chock, E. M. Ehrhorn, J. F. Illingworth, C. B. Keck, A. C. Mason, R. H. Marlowe, O. C. McBride, C. E. Pemberton, J. S. Rosa, C. Schmidt, S. Tinker, H. F. Willard, and F. X. Williams.

Visitors: Miss Bertha Hanaoka, Messrs. A. C. Baker, R. T. Fujio, G. P. Gray, J. K. Holloway, H. Darwin Kirschman, F. K. Lee, S. Maehara, E. R. Sasscer, D. Starr, Lee A. Strong, and C. Sugiu.

President Keck called the meeting to order.

The minutes of the preceding meeting were approved as read.

## NEW BUSINESS

Mr. C. E. Pemberton stated that as a member of the Arrangements Committee for the trip planned by the Hawaiian Academy of Sciences to the Kokee, Kauai region this coming August, anyone having this trip in mind should confer with him.

## EXHIBITION AND DISCUSSION OF LOCAL MATERIAL

Dr. C. Schmidt stated that Dr. Wakabayashi sent in specimens of *Apanteles glomeratus* (L.), parasites of *Pieris rapae* from Waiakoa, Maui. This is apparently the first record of recovery from that island. Discussion of this parasite has been made by Swezey—Proc. Haw. Ent. Soc., Vol. 9, No. 1, p. 25 (1934). Specimens were determined by Dr. Williams.

President Keck then called upon the three visitors from the United States Department of Agriculture. Accordingly, Mr. Lee A. Strong, Chief of the Bureau of Entomology and Plant Quarantine, spoke briefly of the work of the Government in his jurisdiction; the emergency appropriations being for the Dutch Elm Disease, and the Screw Worm in S. E. United States—both being very serious conditions. The other appropriations carry on the normal functions of the departments, there being a good deal of research work involved. Mr. Strong advocated drawing more public attention to what the Bureaus are doing.

Mr. Sasscer, in charge of the Foreign Plant Quarantine Work, spoke of the very large number of insects intercepted in this work.

Dr. Baker, in charge of the Fruit Fly investigations in the United States, also spoke briefly on his work.

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JUNE 4, 1936

The 366th regular meeting of the Hawaiian Entomological Society was held at the Experiment Station, H.S.P.A., Honolulu, on June 4, 1936, at 2:30 p.m.

Members present: Miss Amy Suehiro, Messrs. E. H. Bryan, Jr., E. M. Ehrhorn, D. T. Fullaway, J. F. Illingworth, C. B. Keck, A. C. Mason, O. C. McBride, C. E. Pemberton, J. S. Rosa, W. Weinrich, and F. X. Williams.

Visitors: A. C. Baker, C. P. Clausen, and W. Donaghho.

President Keck called the meeting to order.

## REPORTS OF OFFICERS AND COMMITTEES

The report of the Executive Committee was then put before the society. It involved a payment of \$13.85 on the chop sui banquet of this Spring, and the bill of \$1,354.87 from the Star-Bulletin for printing the Proceedings of the Hawaiian Entomological Society, IX, No. 2, April, 1936. It was moved by Dr. Schmidt and seconded by Dr. Illingworth and voted that the payment of \$13.85 be approved as paid by the treasury. It was also voted that the Star-Bulletin printing bill of \$1,354.87 be approved and that the secretary of the Society approach the Hawaiian Sugar Planters' Association in view to its payment.

## PAPERS OF LOCAL SUBJECTS

Miss Amy Suehiro presented a paper entitled "New Records of Mealybugs in Hawaii".

## EXHIBITIONS AND DISCUSSIONS OF LOCAL MATERIAL

Mr. Donaghho exhibited a specimen of *Vespa occidentalis* Cress. which he had recently captured on Nuuanu ridge at 1,300 ft. elevation. This is the first record of this wasp on Oahu. It has been known on Kauai since 1919.

Mr. Rosa exhibited the large *Conoderus* elaterid beetle which he had reared from a larva.

Specimens of *Lema nigrovittata* Guerin were sent in to the University from the Kalaheo district of Kauai where they are reported to be doing damage in commercial plantings of poa. May 20, 1936. Carl T. Schmidt.

Dr. Williams mentioned finding, chiefly about crab holes on the sandy beach at Hanauma Bay and vicinity, Oahu, a very active fly of the family Empididae. He placed it tentatively in the genus *Chersodromia*. The family is new to the Islands.

Mr. Keck spoke of an oedemerid beetle *Oxaxis collaris* Sharp as being numerous on corn tassels on Sand Island. They were found by Dr. Fricks in charge of the Quarantine Station there.

Drs. Clausen and Baker, and Mr. Fullaway responded in a fitting manner when asked for news.

*Muscoid flies*.—Mr. Bryan exhibited a copy of part 3 of Dr. C. H. T. Townsend's "Manual of Myiology", 249 pp. 1936. This

part contains 35 pages of keys to the families, and for each family the tribes, of Oesteroidea. This superfamily includes the families Gymnosomatidae, Oestridae, Prosenidae, Rutiliidae, Tachinidae, Dexiidae, and Exoristidae. The balance of the volume gives tribal diagnoses and habits, and keys to the genera, of all but the last two families in this list. The type of each genus, with its locality, is cited. There is an index to genera, and a general index gives reference to parasites of insect pests of various plants and animals. For example one can find several paragraphs and a bibliography regarding the efforts to introduce *Paratheresia claripalpis* Wp. into Sinaloa and Hawaii. This record is incorrect, as this parasite was never introduced into Hawaii nor does it occur in these islands.

Mr. Bryan gave an interesting account of his recent trip to the Island of Guam. He based his talk, illustrated by maps, on the interrelation of Phytography and Geology. Coral exposures predominated at the north and mountains of volcanic origin at the south. Certain types of plants were characteristic of each area.

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#### JULY 2, 1936

The 367th regular meeting of the Hawaiian Entomological Society was held at the Experiment Station, H.S.P.A., Honolulu, on July 2, 1936, at 2:30 p.m.

Members present: Miss Amy Suehiro, Messrs. E. H. Bryan, Jr., Walter Carter, Q. C. Chock, E. M. Ehrhorn, D. T. Fullaway, J. F. Illingworth, C. B. Keck, A. C. Mason, C. E. Pemberton, C. T. Schmidt, and F. X. Williams.

Visitors: Mabel Chong and Jas. K. Holloway.

President Keck called the meeting to order.

The minutes of the previous meeting were read and approved as corrected.

#### REPORTS OF OFFICERS AND COMMITTEES

Dr. Walter Carter, reporting as a member of the Hawaiian Academy of Sciences' Invitation Committee to the Pacific Coast Branch of the American Association for the Advancement of Science, stated that the invitation to the above Association to hold one of their meetings in the Hawaiian Islands, was in their hands.

## NOMINATION AND ELECTION OF MEMBERS

Mr. Walter Donaghho was proposed by President Keck for junior membership.

The Secretary-Treasurer stated that the Hawaiian Sugar Planters' Association had paid the bill for printing the Proceedings of the Hawaiian Entomological Society, IX, No. 2, 1936. Mr. Bryan moved that a vote of thanks be extended to the H.S.P.A. by the Society. Seconded by President Keck. Passed.

## EXHIBITIONS AND DISCUSSIONS OF LOCAL MATERIAL

Mr. Chock exhibited specimens of *Belonuchus ephippiatus* (Say) a large immigrant staphylinid beetle with reddish brown elytra. It was found in Kaimuki in chicken manure. It had previously been taken by Chas. Hoyt who gave the specimens to Mr. O. H. Swezey.

Dr. F. X. Williams reported that the one or more nymphs of the large dragonfly *Anax strenuus*, that months ago he had placed in a deep water hole in a Kukui tree in the mountains behind Honolulu, had kept this water hole quite free of the larvae of the day mosquito *Aedes albopictus* (Skuse) that previously swarmed therein.

He also mentioned having seen the immigrant yellow packet wasp, *Vespa occidentalis* Cress., perched on a guava tree at the Waihi-nui Waihi-iki trail junction, upper Manoa Valley, on June 27, 1936. This is the second record of this wasp on Oahu.

Recently a letter was received from the British Museum confirming Mr. Swezey's determination of a now plentiful *Eumerus* syrphid fly, the male of which has the last 4 articles of the hind tarsi flattened and conspicuously silvery white, as *Eumerus aurifrons* (Wd.) (John Smart det.). This fly was first reported from here by Swezey (January 5) and by Pemberton (July) in 1933.

The small sarcophagid recently found on Oahu was determined, also by John Smart, as *Helicobia helicis* Towns. The species, a widely distributed one, has more lately been found at Hanauma Bay and at Waianae.

## EXHIBITION AND DISCUSSION OF FOREIGN MATERIAL

Dr. Walter Carter exhibited two species of chalcidid wasp parasitic on the pineapple mealybug. Both are from the neotropics:

*Hambletonia pseudococina* Compere and a species of *Anagyrus* from Brazil, etc. Both species have now been bred and liberated here.

Dr. Carter further made public that Dr. Carl Schmidt, now with the Pineapple Experiment Station, would soon go to Brazil in search of mealybug parasites—after attending to important business on the U.S.A. mainland.

Mr. Bryan spoke of having received on June 28 a letter from Mr. R. L. Usinger in Guam and who had already collected 82 species of Heteroptera on that Island.

Mr. Fullaway also mentioned having received a letter from Mr. O. H. Swezey, in Guam.

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#### AUGUST 6, 1936

The 368th regular meeting of the Hawaiian Entomological Society was held at the Experiment Station, H.S.P.A., August 6, 1936, at 2:30 p.m.

Members present: Messrs. Bryan, Carter, Ehrhorn, Fullaway, Illingworth, Keck, Marlowe, Pemberton, Rosa, Williams, and Zimmerman.

Visitors: Miss Mabel Chong, W. Donaghho, and D. Kirschman. President Keck called the meeting to order.

The minutes of the previous meeting were read and approved as corrected.

#### REPORTS OF OFFICERS AND COMMITTEES

Dr. Walter Carter reporting as a member of the Hawaiian Academy of Sciences' Invitation Committee to the Pacific Coast Branch of the American Association for the Advancement of Science, stated that the Academy's invitation that the above Association hold one of its meetings in the Hawaiian Islands had been declined and that the matter was therefore closed.

#### NOMINATION AND ELECTION OF MEMBERS

Mr. W. Donaghho was duly elected to junior membership in the Society.

## PAPERS OF LOCAL SUBJECTS

Mr. D. T. Fullaway presented a paper entitled "Notes on the Taro Leafhopper (*Megamelus proserpina* Kirk.) Delphacidae".

## PAPERS ON FOREIGN SUBJECTS

Mr. E. C. Zimmerman showed one of his recently published papers: A Review of the genus *Orchlesia*; as part three of "Rhynchophora of Southeastern Polynesia".

## EXHIBITIONS AND DISCUSSIONS OF LOCAL MATERIAL

Mr. D. T. Fullaway mentioned having reared *Thecla echion* Linn., one of the lantana butterflies, from the Bull Nosed Pepper, and the beetle *Bruchus pruininus* Horn from Erythrina seeds from the Waianae Mts. He exhibited some melon fly parasites collected and shipped in from the Orient by Mr. F. C. Hadden.

Dr. Walter Carter exhibited *Drosophila* flies that had been reared from pineapple plants.

Mr. Walter Donaghho showed a few of the more interesting insects that he had collected on his recent trip to Molokai.

Dr. F. X. Williams exhibited specimens of an immigrant damselfly, of the same family (Coenagrionidae) as our native forms but of the genus *Enallagma*, species near *civile*. Its clearly differentiated black and blue markings contrast quite strongly with the colors and patterns of our native *Megalagrion*. The first specimen was taken July 4, 1936, on a hillside in Manoa Valley; other specimens were secured July 19, about a lowland reservoir at Waianae, Oahu, where also occurred the native species *Meg. xanthomelas*. This immigrant, which obviously has been established here for some time, may have arrived from the Pacific Coast of North America as eggs or nymphs in water plants for aquarium purposes.

He also exhibited the pupal shell, the cocoon, and the adult of an arenophilous dolichopodid fly that was reared from sand beach material of Hanauma Bay, Oahu. The fly is provisionally placed in the large genus *Asyndetus*.

*Draeculacephala mollipes* (Say)—This large green "sharp-shooter" leafhopper was found in mid July at and near Hilo,



Hawaii. This appears to be the first record of this insect from the Island of Hawaii.

A discussion relative to *Megamelus proserpina*, the taro leaf-hopper, closed the meeting at 3:45 p.m.

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### SEPTEMBER 3, 1936

The 369th regular meeting of the Hawaiian Entomological Society was held at the Experiment Station, H.S.P.A., on September 3, 1936, at 2:30 p. m.

Members present: Miss Amy Suehiro, Messrs. Bryan, Carter, Ehrhorn, Illingworth, Ito, Keck, Krauss, Mason, Rosa, Pemberton, Sakimura, Williams, and Zimmerman.

Visitor: Charles Hoyt.

President Keck called the meeting to order.

The minutes of the previous meeting were approved as read.

#### REPORTS OF OFFICERS AND COMMITTEES

It was moved and passed that Dr. Walter Carter's report as of August 6, and relating to the A.A.A.S., be accepted.

#### UNFINISHED AND NEW BUSINESS

It was moved by Mr. E. C. Zimmerman, seconded by Mr. Ehrhorn, and passed, that a set of the Proceedings of the Hawaiian Entomological Society be sent to Dr. E. C. Van Dyke, of the University of California, in recognition of his assistance in identification of Hawaiian beetles and that he be invited to make a prolonged visit to our shores.

#### PAPERS ON LOCAL SUBJECTS

Mr. E. C. Zimmerman stated that the work on "Insects of Hawaii" was now under way and that any help in this undertaking would be very welcome. It is a Bishop Museum project.

#### PAPERS ON FOREIGN SUBJECTS

Mr. E. C. Zimmerman presented a paper entitled: "A New Genus and Species of Baridinae from Amboina".

## EXHIBITION AND DISCUSSION OF LOCAL MATERIAL

Mr. K. Sakimura spoke of insect pest surveys, particularly in reference to such vegetables as the onion. Onions were badly affected by *Thrips tabaci*, while *Empoasca solani* caused "leafhopper burn" on various solanaceous plants. A discussion followed. Dr. Walter Carter advocated the use of Bordeaux Mixture against *Empoasca* as an effective spray, though not sufficiently used.

Dr. Carter mentioned that fleas were now numerous. This abundance was regarded as seasonal, in response to meteorological conditions favorable to this pest. Various remedies were suggested.

Mr. E. H. Bryan, Jr., gave the following determination of fly material on pineapple, collected by Dr. Carter: *Drosophila melanogaster* Meigen, the common pomace fly, and *Gitona perspicax* (Knab), a mealybug predator.

Mr. Charles Hoyt exhibited a species of damselfly new to the Islands. It apparently belongs to the genus *Ischnura*\* and was observed as numerous in the Punahou lily pond, Honolulu, where he first discovered it where it was breeding.

*Camponotus maculatus* (Fab.) var.—The large carpenter ant or large sugar ant was found by Dr. Illingworth to be a troublesome pest in an old house on Wilder Ave., Honolulu. These insects live between the walls of the building and only appear at night. They come out of holes, made in the paper, and congregate in hordes over the walls. The winged forms, males and females, flew in such numbers to lights over the dining table, as to break up the dinner. The insects got into the hair of the people and caused general confusion. As suddenly as they came, all the alate forms disappeared again into the holes in the walls.

*Pseudococcus citri* (Risso).—Dr. Illingworth called attention to mangoes heavily infested by mealybugs thought to be this species. The fruit was grown in the yard of the late Gerrit Wilder on Makiki Heights. The trees are so close together that there is dense shade and consequently moist conditions.

Mr. Noel Krauss, lately returned from Equatorial East Africa, where he was engaged in work on fruit fly parasites for the U. S. Government, gave a brief but interesting account of the country and his itinerary.

\* Later identified by Mr. John Cowley of England as *Ischnura posita* (Hagen). [Ed.]

OCTOBER 1, 1936

The 370th regular meeting of the Hawaiian Entomological Society was held at the Experiment Station, H.S.P.A., on October 1, 1936, at 2:30 p. m.

Members present: Messrs. Bryan, Donaghho, Ehrhorn, Fullaway, Illingworth, Ito, Keck, Krauss, Marlowe, Pemberton, Rosa, Sakimura, Van Zwaluwenburg, Williams, and Zimmerman.

Visitors: Mabel Chong and Foo Kau Lee.

President Keck called the meeting to order.

The minutes of the previous meeting were read and approved as corrected.

## PAPERS ON LOCAL SUBJECTS

Dr. J. F. Illingworth presented a paper by title, i.e. "A Study of Blossom Drop of Tomatoes and Control Measures".

## PAPERS ON FOREIGN SUBJECTS

Mr. E. C. Zimmerman presented a paper entitled "A New Chaetectetorus From Fiji (Coleoptera, Curculionidae)".

## EXHIBITIONS AND DISCUSSIONS OF LOCAL MATERIAL

*Acrodrepanis megalophylla* (Meyrick).—Mr. Bryan exhibited a female specimen of this rare moth, which had been collected by Y. Oshiro at Waiakeauka Camp, back of Hilo, Hawaii, in December, 1933. The specimen had been sent to B. P. Bishop Museum for identification by K. Nitta, teacher at the Waiakeauka school, through E. Y. Hosaka of the Museum staff. This is apparently the fourth female specimen to be collected, and the second in local collections. Two male specimens are known. The species was originally described by Meyrick in the Fauna Hawaiiensis (I:p.189, 1899) in the genus *Scotorythra*, for two specimens from Olaa and one from Kona, Hawaii. In 1901 a male specimen from N. W. Koolau Range, Oahu, was described by Perkins as *Acrodrepanis nesiotis*, in the Entomologists' Monthly Magazine (vol. 37, p. 252, 1901). In his supplement to the Lepidoptera, Meyrick stated that he had "no doubt whatever that this is the other sex of my *megalophylla*", and placed that species in the genus *Acrodrepanis* with Perkins' species as a synonym. Perkins in December, 1906, in his summary of the insects of the Kilauea region, noted that this species occurs on the Olaa side. (Proc.

Hawaiian Ent. Soc. 1:p.98). Swezey reported the capture of a second male at Kaumana, Hawaii (near Hilo) in 1928. (Proc. Hawaiian Ent. Soc. 7: p. 236, 1929).

*S. E. Pacific Insects Papers:* Two additional papers on the insects of southeastern Polynesia have just been issued by B. P. Bishop Museum, and are reviewed as follows:

Elwood C. Zimmerman, The Ampagioid weevils of South-eastern Polynesia (Coleoptera, Curculionidae), B. P. Bishop Museum Occasional Papers, vol. XII, no. 10, 38 pp., 4 figs., September 7, 1936. Discusses the genus *Ampagia*, enumerating 43 species from the Australasian and Pacific regions (Malaya, Australia, Tasmania, Lord Howe Island, New Zealand, New Caledonia, Fiji, Samoa, the Society Islands, Austral Islands, Marquesas Islands, and Mangareva Islands), the 19 species and 1 subspecies from southeastern Polynesia all being described as new; and the new genus *Ampagioides*, with six new species from Tahiti, the Austral Islands, and Rapa. Keys are given to genera and species throughout, and the new species are illustrated. Of the specimens studied, 13 were collected by the Pacific Entomological Survey, and 43 by the Mangarevan Expedition, on which Mr. Zimmerman was entomologist. Types in B. P. Bishop Museum.

S. F. Light and Elwood C. Zimmerman, Termites of south-eastern Polynesia, B. P. Bishop Museum Occasional Papers, vol. XII, no. 12, 12 pp., 1 fig., Sept. 15, 1936. Six species of *Kalotermes* are recorded from the Society Islands, Mangareva, Austral Islands, Oeno, Pitcairn, and Flint Island, *Kalotermes* (?) *rapae* being described as new. A check list is presented of ten species found in Hawaii and the island groups of eastern Polynesia, with their distribution. This shows several species widespread in the Pacific, and the suggestion is made that the natural spread of the termite fauna before the advent of man has since been accelerated by the migrations of the indigenous peoples and especially by visits of ships.

Mr. E. M. Ehrhorn exhibited the large elaterid beetle *Chalcolepidius erythroloma* Cand. which he had secured on a dead stump.

Mr. J. S. Rosa showed *Enallagma* sp., a damselfly newly found here. It was common at Kailua, Oahu.

Mr. D. T. Fullaway exhibited a rather uncommon staphylinid

beetle *Philonthus* sp. which Mr. Holloway had taken in Kona, Hawaii. He also recorded the parasitism by *Trichogramma japonicum* Ashm. of eggs of the drone fly *Lathryophthalmus*, probably *arvorum*. The eggs were found on a rice stem. This is a new host record here for this wasp. He also spoke of the abundance of aphids this year. Mention was also made by Mr. Fullaway of the Guam fruit fly parasite collected by Mr. O. H. Swezey. The parasite was an undetermined species closely related to *Biosteres longicaudatus* Ashm.

Dr. F. X. Williams exhibited several species of large picture-winged drosophilid flies which he had taken in a banana grove on the side of Konahuanui.

#### EXHIBITION AND DISCUSSION OF FOREIGN MATERIAL

Mr. Fullaway showed a copy of Dr. A. da Costa Lima's third part of his *Injurious Insects of Brazil and Their Hosts*.

Mr. Noel Krauss showed some photographs of his recent trip to Africa.

Mr. R. H. Van Zwaluwenburg gave an interesting account of his work in West Africa. He was engaged by the U. S. Department of Agriculture to search for additional parasites of fruit flies there.

Mr. E. H. Bryan, Jr., spoke of the desirability of having the Proceedings of the Hawaiian Entomological Society review briefly the more important papers referring to entomological work done in the Pacific, both local and exotic. After considerable discussion Mr. R. H. Van Zwaluwenburg moved that the chair appoint a committee on publication policy. President Keck thereafter appointed the committee as follows: E. H. Bryan, Jr., (Chairman), O. H. Swezey, D. T. Fullaway, and Dr. Walter Carter.

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#### NOVEMBER 5, 1936

The 371st regular meeting of the Hawaiian Entomological Society was held at the Experiment Station, H.S.P.A., on November 5, 1936, at 2:30 p. m.

Members present: Miss Amy Suehiro, Messrs. Bianchi, Bryan, Carter, Ehrhorn, Fullaway, Hadden, Illingworth, Keck, Krauss,

Mason, Rosa, Van Zwaluwenburg, Weinrich, Williams and Zimmerman.

President Keck called the meeting to order.

The minutes of the preceding meeting were read and approved.

#### PAPERS ON LOCAL SUBJECTS

Dr. J. F. Illingworth presented a paper by title: "Observations on the Predacious Habits of *Cyrtopeltis varians* (Dist.) (Hemiptera)".

#### PAPERS ON FOREIGN SUBJECTS

Mr. E. C. Zimmerman presented a paper entitled: "The Genus *Osseteris* in Fiji (Coleoptera, Curculionidae).

#### EXHIBITIONS AND DISCUSSIONS OF LOCAL MATERIAL

Mr. E. C. Zimmerman discussed the prevalence here of the endemic type of Typhus fever, which spreads from rats to human beings through the intermediary of fleas. A discussion followed.

Mr. D. T. Fullaway in comparing the ichneumonid hitherto recorded here somewhat recently as *Exochus* sp., determined it to be the same as the long established *Metacoelus femoralis* (Four.).

Mr. E. M. Ehrhorn, in further confirmation of the specific identity of the large *Scolopendra subspinipes* Leach centipede and the small, more or less greenish or bluish ones, stated that he had found in a flower pot a mother *subspinipes* nursing her bluish-legged young. He also spoke of finding *Isodontia harrisi* Fernald, the large immigrant grasshopper wasp, constructing a grass nest in an upright half-inch pipe by the pond in his garden.

Mr. E. H. Bryan, Jr., stated that Mr. Ehrhorn's valuable coccid collection and library had been moved from the University of Hawaii to the Bishop Museum.

*Lagocheirus obsoletus* Thoms.—Dr. Illingworth exhibited stems of *Nothopanax* hedge plants seriously damaged by the grub of this cerambycid beetle. At the meeting of September, 1935, he reported this species destructive to geranium plants in the same yard.

*Triatoma rubrofasciata* (De Geer). Dr. Illingworth exhibited a series of this bug, and reported finding it breeding in hundreds

in an old lumber pile at Kaimuki. This predaceous bug feeds on insects. In turning over the lumber, one was found with its beak inserted in a dead American roach. One has to use care in handling them for, if given an opportunity they quickly sink their beak into one's skin. This is an introduced species, long in the Islands, and apparently rather abundant, yet it has seldom been reported in our Proceedings.

Mr. R. H. Van Zwaluwenburg said that the elaterid beetle, *Conoderus eveillardii* Le Guill., first noted here in 1931, was extending its range on Oahu.

Dr. F. X. Williams stated that the recently found sarcophagid fly *Helicobia heliciis* Towns. had been noted by Mr. Ehrhorn associated with the immigrant *Eulota similaris* snail. A puparium, probably of *Helicobia* had later been formed from a maggot which issued from the dead snail.

Dr. F. X. Williams exhibited winged female specimens of the endemic ponerine ant *Pseudocryptopone swezeyi*, one of the two species of the genus described from Hawaii by Dr. W. M. Wheeler. These ants were collected on the Mount Olympus trail, at about 1,800 ft. on a bit of mossy ground, on November 1, 1936. Two days later a single de-alated female was taken from under moss a little farther along. There and elsewhere small colonies of the sluggish immigrant *Strumigenys lewisi* Cameron, with long falcate mandibles were encountered in the larval, pupal, and adult worker, and queen stages. *Pseudocryptopone swezeyi* as well as *Ps. zwaluwenburgi* were first taken by Mr. R. H. Van Zwaluwenburg in his soil fauna studies of Hawaiian sugar cane fields, some years ago. He mentioned that the region about Koko Head has recently been freshened by recent rains so that weed plants, etc. are springing up, and the sphinx moth *Deilephila lineata* is about, its green eggs being already found on one of its food plants.

#### EXHIBITION AND DISCUSSION OF FOREIGN MATERIAL

Mr. F. C. Hadden exhibited some fruit flies and their parasites from the Malay Peninsula. He spoke briefly of his fruit fly parasite work in the Orient on behalf of the Bureau of Entomology, U. S. Department of Agriculture. Among the localities visited were Singapore, Kuala Lumpur, India, and Ceylon, the last country being the most pleasant and interesting.

## DECEMBER 3, 1936

The 372nd regular meeting of the Hawaiian Entomological Society was held at the Experiment Station, H.S.P.A., December 3, 1936, at 2:30 p. m.

Members present: 14; visitors: 0.

In the absence of both President and Vice-President, Mr. C. E. Pemberton was voted to take the chair.

The minutes of the previous meeting were read and approved.

## REPORT OF OFFICERS AND COMMITTEES

The Treasurer's report for the year 1936 (Dec. 2, 1935 to Dec. 2, 1936) was read and passed. The chair appointed Mr. E. M. Ehrhorn to audit the Society's books.

## ELECTION OF OFFICERS FOR 1937

President, J. S. Rosa; Vice-President, Miss Amy Suehiro; Secretary-Treasurer, F. X. Williams; additional member of the Executive Committee, E. M. Ehrhorn.

Chairman Pemberton then reappointed Mr. O. H. Swezey as Editor of the "Proceedings", J. S. Rosa as Librarian, and F. X. Williams as Curator of Collections.

Mr. E. H. Bryan remarked that Mr. Swezey has written some very interesting entomological papers in the Guam Recorder.

## PAPERS ON LOCAL SUBJECTS

Mr. Kay Sakimura presented a paper entitled: "Notes on Thysanopterous Fauna in Hawaii". He also presented, on behalf of Dudley Moulton, a paper entitled: "Further Notes on Hawaiian Thrips with Descriptions of New Species".

In collecting thrips and other insects by means of tanglefoot squares set up in the wind, Dr. Walter Carter stated that many and various insects were thus caught.

Mr. R. H. Marlowe presented a paper entitled "Susceptibility of Two Tomato Varieties to Infestation by *Chaetodacus cucurbitae* (Coq.)."

## PAPERS ON FOREIGN SUBJECTS

On behalf of Mr. R. L. Usinger, Dr. F. X. Williams presented by title two papers—"Two New Pacific Island Species of



Nysius" and "A New Name for *Nysius monticola* Kirkaldy".

Mr. E. C. Zimmerman presented a paper entitled "A New Genus of Samoan Curculionidae (Coleoptera)".

#### EXHIBITION AND DISCUSSION OF LOCAL MATERIAL

Mr. Marlowe reported that mites were found on "Solo" papaya at Kailua. The injury caused by the mites in one grove appeared serious as over 50 per cent of the fruit produced were infested. Red egg clusters, nymphs and adults were found in abundance especially on small immature papayas. The mites by feeding, were injuring the outer cells which would die, and thus cause the fruit to become deformed.

Specimens of mites were collected in September, 1936 and sent to E. A. McGregor, Whittier, California, for identification. The mites were identified as the "Privet Mite", *Tenuipalpus bioculatus* McG. The mite has a very wide distribution, having been described originally from South Carolina and occurring commonly in California. Mr. McGregor states that the mite is causing some concern at Corona. One grower dusted nearly 100 acres of lemons, using 400-mesh sulfur and got practically 100 per cent control.

Dr. F. X. Williams stated that while collecting with Mr. Zimmerman about Palikea to 3,110 feet in the Waianae Mountains on November 11, 1936, multitudes of *Carpophilus* beetles (Nitidulidae) were on the wing and were particularly annoying at lunch time. He thought that some fermenting pineapple material and guava fruits on the lower slopes might be responsible for this swarming. The wasp *Proctotrypes hawaiiensis* Ashm., a native insect was abundant on slightly honey dewed leaves of *Rumex gigantea* on the high ridges. Numerous also in these highlands were fungus-gnats and the *Forcypomyia* midge. *Pheidole* ants were common on the summits which here barely enter the mossy forest zone. Later in November a staphylinid beetle, probably a *Philonthus*, was common and active along the trails. In this district at least it seems as if the once very common *Argiope avara* spider now much reduced through the depredations of a wasp, appeared to be becoming replaced by the fat-bodied araneid *Neoscona benjamina*, a spider that spins across trails, etc., an orb web of feebler structure than that of *Argiope*.

*Exochus (Metacoelus) femoralis* Fourcroy—Mr. Fullaway reported that as a result of careful comparison with an example of the above species left by Albert Koebele he was able to identify the male wasp taken on window pane at the H.S.P.A. Station on July 26, 1933 (vide Proceedings vol. VIII, p. 378) with same.

*Orgilus* sp.—Mr. Fullaway reported that in examining his collections recently he had found an example of this braconid (vide Proceedings vol. VIII, p. 13, vol. IX, p. 95) taken from same locality Feb. 5, 1911, antedating Swezey's record 23 years.

Mr. F. A. Bianchi gave a very interesting talk on his fruit fly work in East Africa.

*Diachasma suppressed*:—Mr. McBride announced that he had notice that the National Museum is now recognizing Gahan's work, (Proc. U. S. Nat. Mus., 49:63, 1915) suppressing *Diachasma* Foerster as a synonym of *Opius* Wesmael, and this view is maintained in the Insect Identification Division, U. S. Dept. of Agriculture. Future publications from the Bureau will in all probability refer to *Dichasma* as a synonym of *Opius*. The fruit fly parasites therefore are *Opius tryoni* and *Opius fullawayi*.